

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original) A graphite-containing heat-resistant cast iron comprising 3.5-5.6% of Si and 1.2-15% of W on a weight basis, and having intermediate layers, in which W and Si are concentrated, in the boundaries of graphite particles and a matrix.
2. (original): The heat-resistant cast iron according to claim 1, wherein a ratio (X_i/X_m) of the weight ratio X_i of W in said intermediate layers to the weight ratio X_m of W in said matrix is 5 or more.
3. (currently amended): The heat-resistant cast iron according to ~~claim 1 or 2~~claim 1, wherein a ratio (Y_i/Y_m) of the weight ratio Y_i of Si in said intermediate layers to the weight ratio Y_m of Si in said matrix is 1.5 or more.
4. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-3~~claim 1, having a composition comprising, on a weight basis, 1.5-4.5% of C, 3.5-5.6% of Si, 3% or less of Mn, 1.2-15% of W, less than 0.5% of Ni, 0.3% or less of Cr, and 1.0% or less of a graphite-spheroidizing element, the balance being substantially Fe and inevitable impurities.
5. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-4~~claim 1, further comprising 0.003-0.02% by weight of S and 0.05% or less by weight of a rare earth element.
6. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-5~~claim 1, comprising 0.005-0.2% by weight of Mg as a graphite-spheroidizing element.

7. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-6~~ claim 1, wherein it meets $\text{Si} + (2/7) \text{W} \leq 8$ on a weight basis.
8. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-7~~ claim 1, further comprising 5.5% or less by weight of Mo.
9. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-8~~ claim 1, further comprising 6.5% or less by weight of Cu.
10. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-9~~ claim 1, further comprising 5% or less by weight of Co.
11. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-10~~ claim 1, further comprising 1.0% or less by weight of Nb and/or 0.05% or less by weight of B.
12. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-11~~ claim 1, wherein the number of graphite particles having W-containing carbide particles in the boundaries with said matrix is 75% or more of the total number of graphite particles.
13. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-12~~ claim 1, wherein with respect to W-containing carbide particles on the surface of graphite particles exposed by etching, their number is $3 \times 10^5/\text{mm}^2$ or more per a unit area of graphite, and/or their area ratio is 1.8% or more.
14. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-13~~ claim 1, wherein its A_{C1} transformation point is 840°C or higher when measured from 30°C at a temperature-elevating speed of 3°C/minute.

15. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-14~~, wherein its weight loss by oxidation is 60 mg/cm^2 or less when kept at 800°C for 200 hours in the air.
16. (currently amended): The heat-resistant cast iron according to ~~any one of claims 1-15~~claim 1, wherein its thermal cracking life is 780 cycles or more in a thermal fatigue test, in which heating and cooling are conducted under the conditions of an upper-limit temperature of 840°C , a temperature amplitude of 690°C and a constraint ratio of 0.25.
17. (currently amended): An exhaust equipment member made of the heat-resistant cast iron recited in ~~any one of claims 1-16~~claim 1.
18. (original): The exhaust equipment member according to claim 17, wherein it is an exhaust manifold, a turbocharger housing, an exhaust manifold integral with a turbocharger housing, a catalyst case, an exhaust manifold integral with a catalyst case, or an exhaust outlet.
19. (original): An exhaust equipment member used at temperatures exceeding 800°C , which is formed by a heat-resistant cast iron having a composition comprising, on a weight basis, 1.5-4.5% of C, 3.5-5.6% of Si, 3% or less of Mn, 1.2-15% of W, less than 0.5% of Ni, 0.3% or less of Cr, and 1.0% or less of a graphite-spheroidizing element, $\text{Si} + (2/7) \text{W} \leq 8$, and the balance being substantially Fe and inevitable impurities, said heat-resistant cast iron having a structure comprising a matrix based on a ferrite phase in an as-cast state, in which graphite is crystallized, and intermediate layers, in which W and Si are concentrated, in the boundaries of said graphite particles and said matrix, whereby it has an $A_{\text{C}1}$ transformation point of 840°C or higher when measured from 30°C at a temperature-elevating speed of $3^\circ\text{C}/\text{minute}$, and a thermal cracking life of 780 cycles or more in a thermal fatigue test, in which heating and cooling are

conducted under the conditions of an upper-limit temperature of 840°C, a temperature amplitude of 690°C and a constraint ratio of 0.25.

20. (original): The exhaust equipment member according to claim 19, wherein a ratio (X_i/X_m) of the weight ratio X_i of W in said intermediate layers to the weight ratio X_m of W in said matrix is 5 or more.

21. (original): The exhaust equipment member according to claim 20, wherein said X_i/X_m is 10 or more.

22. (currently amended): The exhaust equipment member according to ~~any one of claims 19-21~~ claim 1, wherein a ratio (Y_i/Y_m) of the weight ratio Y_i of Si in said intermediate layers to the weight ratio Y_m of Si in said matrix is 1.5 or more.

23. (original): The exhaust equipment member according to claim 22, wherein said Y_i/Y_m is 2.0 or more.

24. (currently amended): The exhaust equipment member according to ~~any one of claims 19-23~~ claim 19, wherein its weight loss by oxidation is 60 mg/cm² or less when kept at 800°C for 200 hours in the air.

25. (currently amended): The exhaust equipment member according to ~~any one of claims 19-24~~ claim 19, wherein said heat-resistant cast iron has a composition comprising, on a weight basis, 1.8-4.2% of C, 3.8-5.3% of Si, 1.5% or less of Mn, 1.5-10% of W, 0.3% or less of Ni, 0.3% or less of Cr, and 0.01-0.2% of a graphite-spheroidizing element, $Si + (2/7)W \leq 8$, and the balance being substantially Fe and inevitable impurities.